SPLIT - 1

Work Order ID 86733 *86733*

July-06-12 11:47:09 AM

Item ID: D2893-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: 2.75 Support

Start Date: 7/20/12 **Start Qty:** 16.00 *16* (10)

Required Date: 7/20/12 **Req'd Qty:** 16.00 *16*

Reference:

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ✓ **Date:** 12-07-9 **Tooling:** **Date:**

QC: **Date:** **SPC (Y/N):** **Date:**

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr: D2893	Revision Nbr: C								
100 *100* HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1	0.00							
	Memo 1-Machine as per Folio FA081 2-Deburr	0.00	DT/JJ 12/08/08						x 10
110 *110* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB	0.00							
	Memo	0.00	DT/JJ 12/08/08						x 10 PTO
120 *120* QC Quality Control	QC8- Inspect parts - second check	0.00							
	Memo	0.00	12-08-09			10	1		

Dart Aerospace Ltd

W/O: 86733	WORK ORDER CHANGES						
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: P 2893-1 **PAR #:** _____ **Fault Category:** Machining. **NCR:** Yes No **DQA:** [illegible] **Date:** 12/08/13

Resolution: _____ **Disposition:** Scrap. **QA: N/C Closed:** NO **Date:** 12/8/14

NCR: 12-167.	WORK ORDER NON-CONFORMANCE (NCR) $232.01							
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			
12/08/07	100	Measurements AA-AB-AC under tolerance ... Tool offsets too low. (Part #1)	DAS 16 9-09 DS2012 12/08/09	SCRAP	12.08.09	DAS 16 9-09 12/08/09	DAS 16 9-09 DS2012 12/08/09	DAS 16 9-09 12/8/09

NOTE: Date & initial all entries

Item ID: D2893-1 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: 2.75 Support

Start Date: 7/20/12 **Start Qty:** 16.00 *16* **Cust Item ID:**
Required Date: 7/20/12 **Req'd Qty:** 16.00 *16* **Customer:**
Reference:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130 HandFXtube						AB	12 - 8 - 9		(10)
Hand Finishing Crosstubes	**Memo** Per note 8 on page 1 of dwg D2893, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24h of cure time.	0.00							
140	QC3- Inspect Part Finish	0.00							
140 QC						(10)			
Quality Control	**Memo**	0.00 DAS 16 8-09 7/20/10							
170	Identify as per dwg & Stock Location: SHOP	0.00							
170 Packaging						7/28/10			(10)
Packaging	**Memo**	0.00							

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Work Order ID 86733
July-06-12 11:47:09 AM

86733

Item ID: D2893-1
Revision ID:
Item Name: 2.75 Support

Accept *N900040100*

Setup Start *NS1*
Stop *NS2*

Start Date: 7/20/12 **Start Qty:** 16.00 *16*
Required Date: 7/20/12 **Req'd Qty:** 16.00 *16*
Reference:

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							
Quality Control									

MCJ 12/08/10

MCJ 12/08/10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: NC Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

July-06-12 11:47:08 AM

Work Order ID: 86733

Parent Item: D2893-1

Parent Item Name: 2.75 Support

Start Date: 7/20/12 **Required Date:** 7/20/12

Start Qty: 16.00 **Required Qty:** 16.00

Comments: IPP: C02.11.26Reformat; Added P/OKJ
IPP D 06.04.19 removed alodine EC
IPP Rev:E Added priming as per Rev B 07-04-30 JLM
IPP F 08.03.19 Re-format EC verified by: DD
IPP Rev:G 08-05-15 add QC14 DD verified by:EC IPP Rev:H 11.08.04 as per dwg
rev.C DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK078 D2893-1 TURNING DETAIL		Manufactured	No			100	Each	10.0000	0.5 8	8.4210526	8	12/08/07	

Location	Loc Qty	Loc Code
MAT	-10	
MAT060	20	
84787 → 88710	10	

8

Material NOT Pulled

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	86733
Description: Ø2.750 Support	Part Number:	D2893-1
Inspection Dwg: D2893 Rev: ~~B~~ C		Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

[X] First Article [ ] Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.985	3.005		2.983	2.985	2.990	2.990	2.996
AB	0.440	0.460		.390	.440	.440	.445	.445
AC	0.125	0.160		.109	.134	.135	.136	.144
AD	0.040	0.060		.049	.050	.050	.050	.050
AE	0.188	0.193		.190	.190	.190	.190	.190
AF	0.125	0.160		.142	.138	.138	.140	.138
AG	0.140	0.160		.149	.149	.148	.148	.147
AH	1.360	1.400		1.366	1.368	1.3715	1.370	1.371
AI	0.040	0.060		.053	.0475	.052	.053	.053
AJ	1.190	1.230		1.2195	1.214	1.2165	1.217	1.215
AK	0.010	0.020		.010	.010	.010	.010	.010
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.530	2.530	2.530	2.530	2.530
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.261	.261	.261	.261	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS				↑				
AT								
			Accept/Reject	scrap				

Measured by:		Date:	12/08/07
Audited by:		Date:	12-08-09
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	86733
Description: Ø2.750 Support	Part Number:	D2893-1
Inspection Dwg: D2893 Rev: B C DES 12/07/08		Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

[X] First Article [ ] Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	#6	#7	#8	#9	#10
HAAS Section								
AA	2.985	3.005		2.997	2.999	2.999	2.994	3.000
AB	0.440	0.460		.442	.442	.442	.442	.442
AC	0.125	0.160		.138	.139	.141	.140	.142
AD	0.040	0.060		.056	.056	.057	.060	.050
AE	0.188	0.193		.189	.189	.189	.189	.189
AF	0.125	0.160		.140	.140	.140	.140	.142
AG	0.140	0.160		.146	.146	.147	.150	.147
AH	1.360	1.400		1.372	1.367	1.369	1.370	1.369
AI	0.040	0.060		.049	.051	.051	.049	.047
AJ	1.190	1.230		1.216	1.212	1.209	1.214	1.210
AK	0.010	0.020		.012	.012	.012	.012	.012
AL	0.053	0.073		.063	.063	.063	.063	.063
AM	0.240	0.260		.250	.250	.250	.250	.250
AN	2.518	2.538		2.522	2.519	2.521	2.521	2.521
AO	84.39	90.39		87.39	87.39	87.39	87.39	87.39
AP	0.261	0.266		.264	.264	.264	.264	.261
AQ	0.053	0.073		.063	.063	.063	.063	.063
AR								
AS								
AT								
			Accept/Reject					

Measured by:	RT	Date:	12-08-09
Audited by:	[signature]	Date:	12-08-09
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	[signature]

DART AEROSPACE LTD	Work Order:	96733
Description: Ø2.750 Support	Part Number:	D2893-1
Inspection Dwg: D2893 Rev: ~~B~~ C		Page 1 of 1

12/07/18

FIRST ARTICLE INSPECTION DIMENSION SHEET

[X] First Article [ ] Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	I1	I2	I3	I4	I5
HAAS Section								
AA	2.985	3.005		2.996				
AB	0.440	0.460		.441				
AC	0.125	0.160		.141				
AD	0.040	0.060		.049				
AE	0.188	0.193		.189				
AF	0.125	0.160		.140				
AG	0.140	0.160		.143				
AH	1.360	1.400		1.367				
AI	0.040	0.060		.050				
AJ	1.190	1.230		1.211				
AK	0.010	0.020		.012				
AL	0.053	0.073		.063				
AM	0.240	0.260		.250				
AN	2.518	2.538		2.526				
AO	84.39	90.39		87.39				
AP	0.261	0.266		.261				
AQ	0.053	0.073		.063				
AR								
AS								
AT								
Accept/Reject								

Measured by:	RT	Date:	12-08-09
Audited by:	~~JM~~	Date:	12-08-09
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

DART AEROSPACE LTD	Work Order:	8C733
Description: Ø2.750 Support	Part Number:	D2893-1
Inspection Dwg: D2893 Rev: ~~B~~ C DF 12/27/18		Page 1 of 1

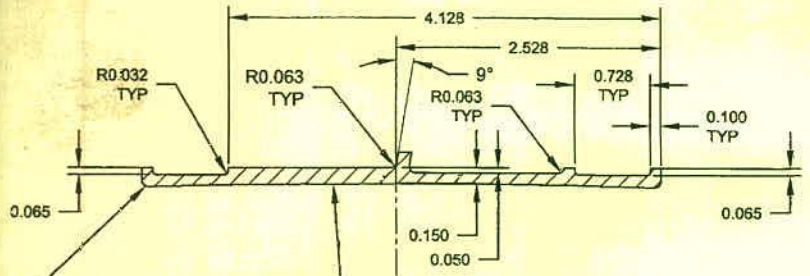
FIRST ARTICLE INSPECTION DIMENSION SHEET

[X] First Article [ ] Prototype

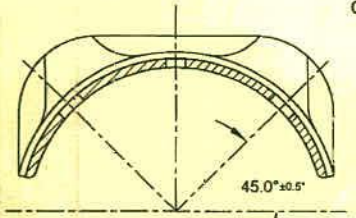
				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16 ✓	2 ✓	3 ✓	4 ✓	5 ✓
HAAS Section								
AA	2.985	3.005						
AB	0.440	0.460						
AC	0.125	0.160						
AD	0.040	0.060						
AE	0 188	0.193						
AF	0.125	0.160						
AG	0.140	0.160						
AH	1.360	1.400						
AI	0.040	0.060						
AJ	1.190	1.230						
AK	0.010	0.020						
AL	0.053	0.073						
AM	0.240	0.260						
AN	2.518	2.538						
AO	84.39	90.39						
AP	0.261	0.266						
AQ	0.053	0.073						
AR								
AS								
AT								
			Accept/Reject					

Measured by:		Date:	
Audited by:		Date:	
Prototype Approval:		Date:	

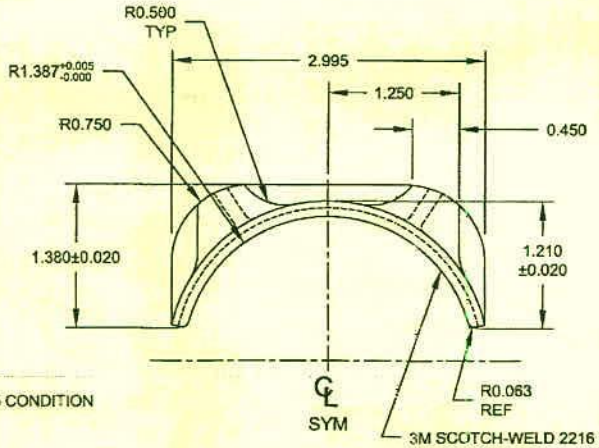
Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	07.05.08	Dimension AP revised	KJ/JLM	
C	08.04.21	Reformat	KJ/JLM	

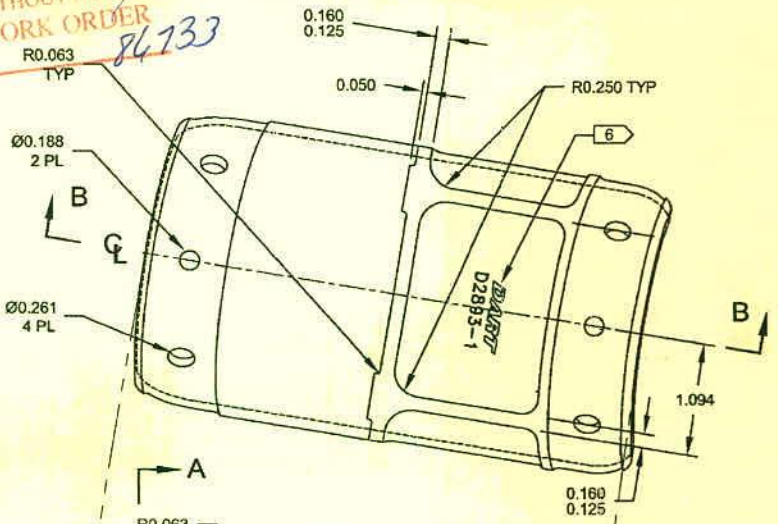


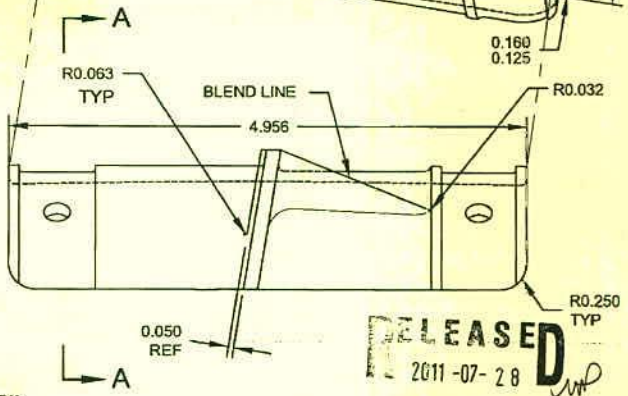
SECTION B-B



SECTION A-A
TOOLING HOLE DETAIL







3M SCOTCH-WELD 2216 B/A EPOXY ADHESIVE 0.03" - 0.05" THICK (8) (B)

D2893-1 SUPPORT

NOTES:
1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRc)
(REF DART SPEC. D6104)
(C) 2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ±0.010) UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP, PER DART QSI 044 6.3.
7) WEIGHT: 0.78 lb
(C) 8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.

REV.	DESCRIPTION	BY	DATE
C	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION	CP	11.07.15
B	UPDATE DIMS AS MFG, PRIME INSIDE	PH	07.03.16
A	NEW ISSUE	CP	01.01.10

DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	CP	
CHECKED	ASS	DRAWING NO. D2893 REV. C
MFG APPR.		SHEET 1 OF 1
APPROVED		TITLE Ø2.750 SUPPORT
DE APPR.		SCALE NTS
DATE	11.07.15	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries